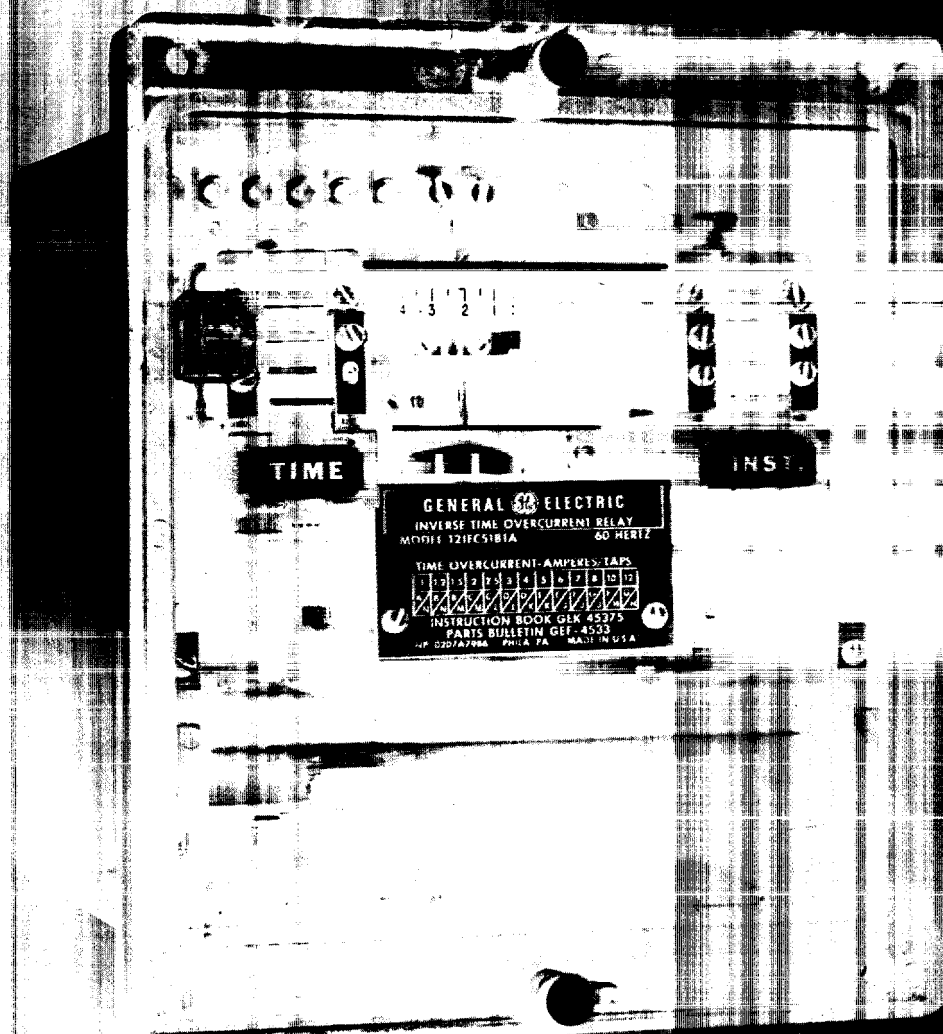


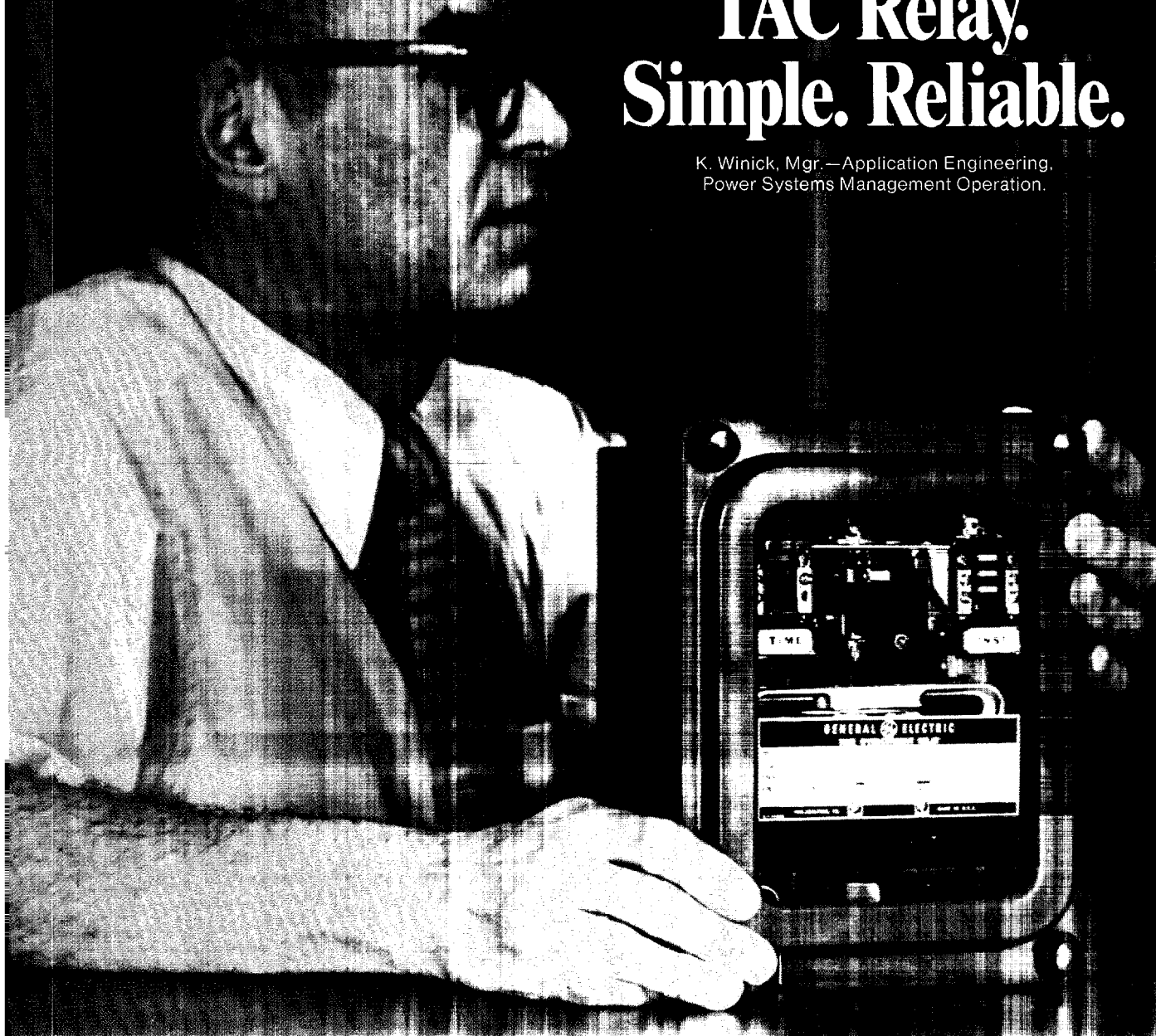
New Time-Overcurrent Relay Type IFC



GENERAL  ELECTRIC

The IAC Relay. Simple. Reliable.

K. Winick, Mgr.—Application Engineering,
Power Systems Management Operation.



It's difficult to improve on General Electric's IAC time-overcurrent relay—a design so simple and reliable that it's the most widely-used protective relay in the world today.

But General Electric's IFC relay does just that. It retains all the best features of the familiar IAC while offering important new advantages to relay

engineers, equipment designers, and maintenance personnel.

The IFC is smaller than the IAC in height and width and takes up 25% less panel space. At the same time, relay visibility is improved because the entire cover is transparent. Relay selection is also simplified and the number of models to stock is reduced

The New IFC Relay. Simpler. Smaller. Better.

E. L. Stagliano, Mgr.—Product Planning,
Power Systems Management Operation.



by the IFC's extended time and instantaneous ranges.

Visible CT shorting contacts are located up front and all live parts are recessed. A new test probe with plug-in connectors makes testing easier and more flexible.

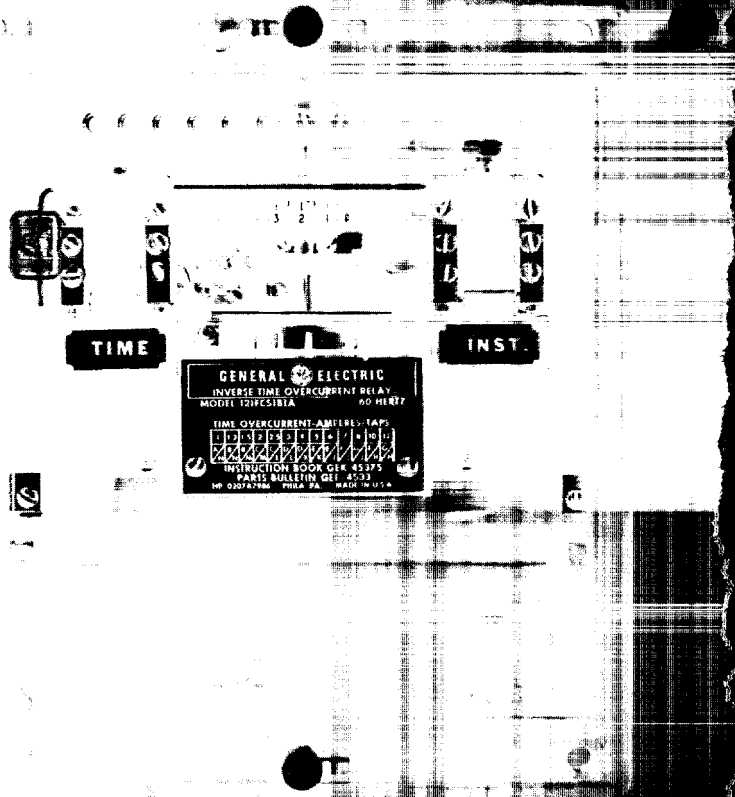
With all its improvements, the IFC still offers many of the proven features of the IAC, such as induction disk design and

fully drawout construction. External terminal connections are the same. And the IFC is available in extremely inverse, very inverse and inverse models with optional instantaneous unit for 60 Hz and 50 Hz.

Take a good look at General Electric's new IFC time over-current relay. You'll quickly see that, good as the IAC is, the IFC is even better.

Relay

A close look will show you why the IEC now represents the best time-overcurrent relay value available.



...an extension of the expertise behind 15 million relay-years of IAC operating experience.

SMALLER SIZE

The IFC is smaller in both height and width, requires 25% less panel space and needs no additional panel space for cover removal. Even so, the compact construction provides improved access for testing and maintenance.

LOWER INVENTORY

Relay selection is simpler and there are fewer models to stock with IFC's extended time and instantaneous ranges. Obviously, the result is lower inventory costs.

IMPROVED TESTING

The IFC's connection/test feature makes testing easier and more flexible. Test wiring is simpler using the new test probe and plug-in connections. And, time current characteristics are not changed by removing the relay from the case.

EASIER MAINTENANCE

All live parts are recessed. CT shorting contacts are up front and visible. Case and relay structure are insulating glass-filled polyester. The IFC is recognized under the Component Program of Underwriters' Laboratories, Inc.

IAC FEATURES RETAINED

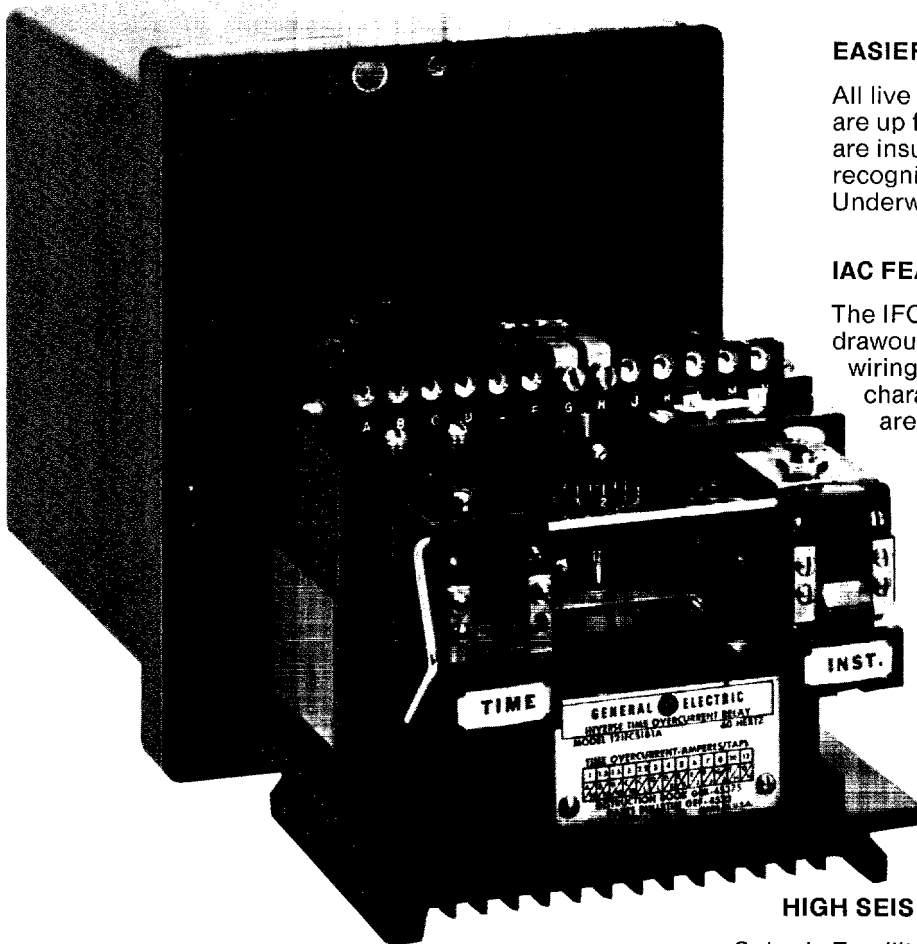
The IFC has the same induction-disk, completely-drawout construction and the same external wiring connections as the IAC. Performance characteristics and application criteria are unchanged.

MODERN MATERIALS AND CONSTRUCTION

Application of modern materials and manufacturing processes results in fewer parts and compact, rugged construction.

HIGH SEISMIC CAPABILITY

Seismic Fragility Level exceeds maximum acceleration of 10g when tested using a biaxial multi-frequency input motion to produce a Required Response Spectra (RRS) in accordance with the IEEE Proposed Guide for Seismic Testing of Relays, P501, July, 1976.



IFC

Retaining the best features of the IAC

IAC

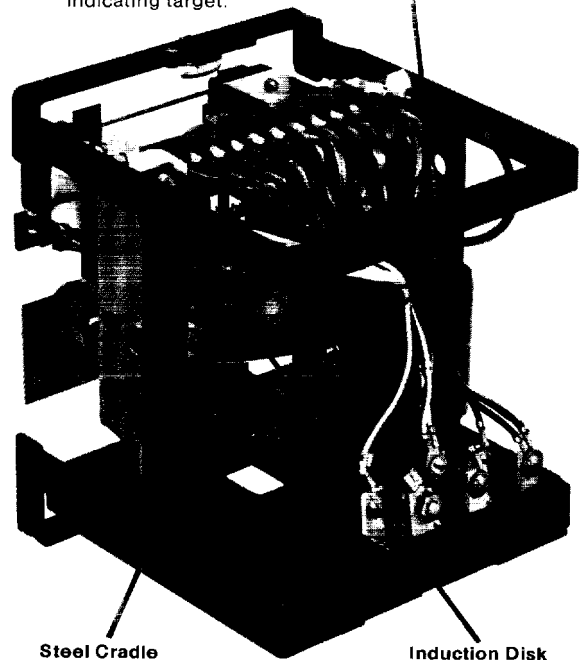
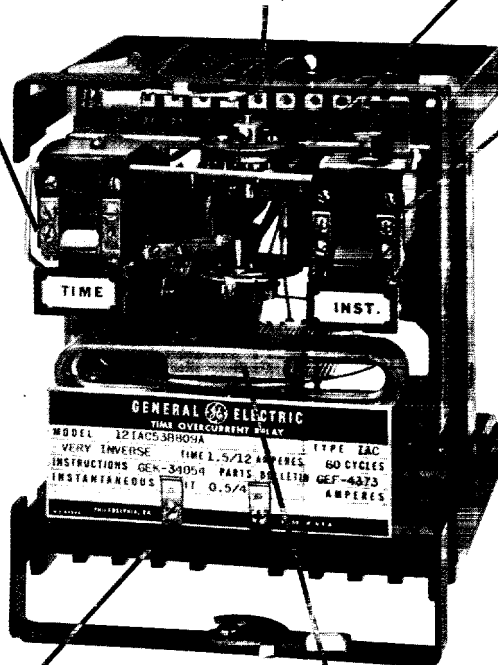
Target and Seal-in Unit for time over-current element is a hinged-armature relay. A tapped coil provides both 0.2-amp and 2-amp ratings. Flow of trip current operates the target and the seal-in contacts.

Tap Setting Time-overcurrent operating coil has taps connected to receptacles on the tap block for setting with the movable tap lead. Two time-overcurrent ranges are available: 0.5-4 or 1.5-12 amperes.

Time Dial with continuous adjustment from 0-10.

Instantaneous Overcurrent Unit is a hinged-armature relay. Operating coils are connected either in series or parallel at the back of the unit to select the upper or lower portion of an 8:1 adjustment range. Unit contains its own indicating target.

Time-Overcurrent Operating Coil and Magnet

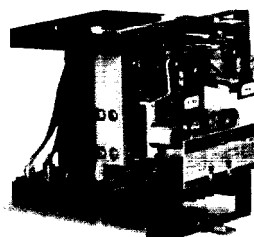
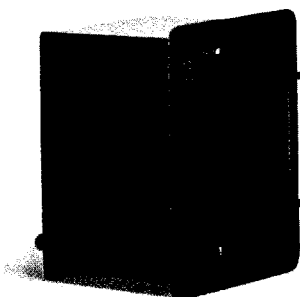


Contact Block supports contact fingers of the removable element. The connection plug makes connection between these fingers and the contact fingers on the case terminal block.

Alnico Drag Magnet

Steel Cradle

Induction Disk



TARGET RESET



Case is fabricated steel with phenolic end blocks, and is suitable for either semi-flush or surface mounting.

Removable Relay Element is mounted on a steel cradle providing easy access for maintenance.

Connection Plug makes positive silver-to-silver contact between fingers on the contact block and the case terminal block.

Cover is gasketed phenolic frame with glass insert which permits visual inspection of the relay and determination of target position. The target reset button projects from the bottom of the cover.

Test Plug Routine testing can be accomplished by removing the relay cover and connection plug, and substituting a Type XLA test plug with suitable external connections.

plus improved design and modern construction

IFC

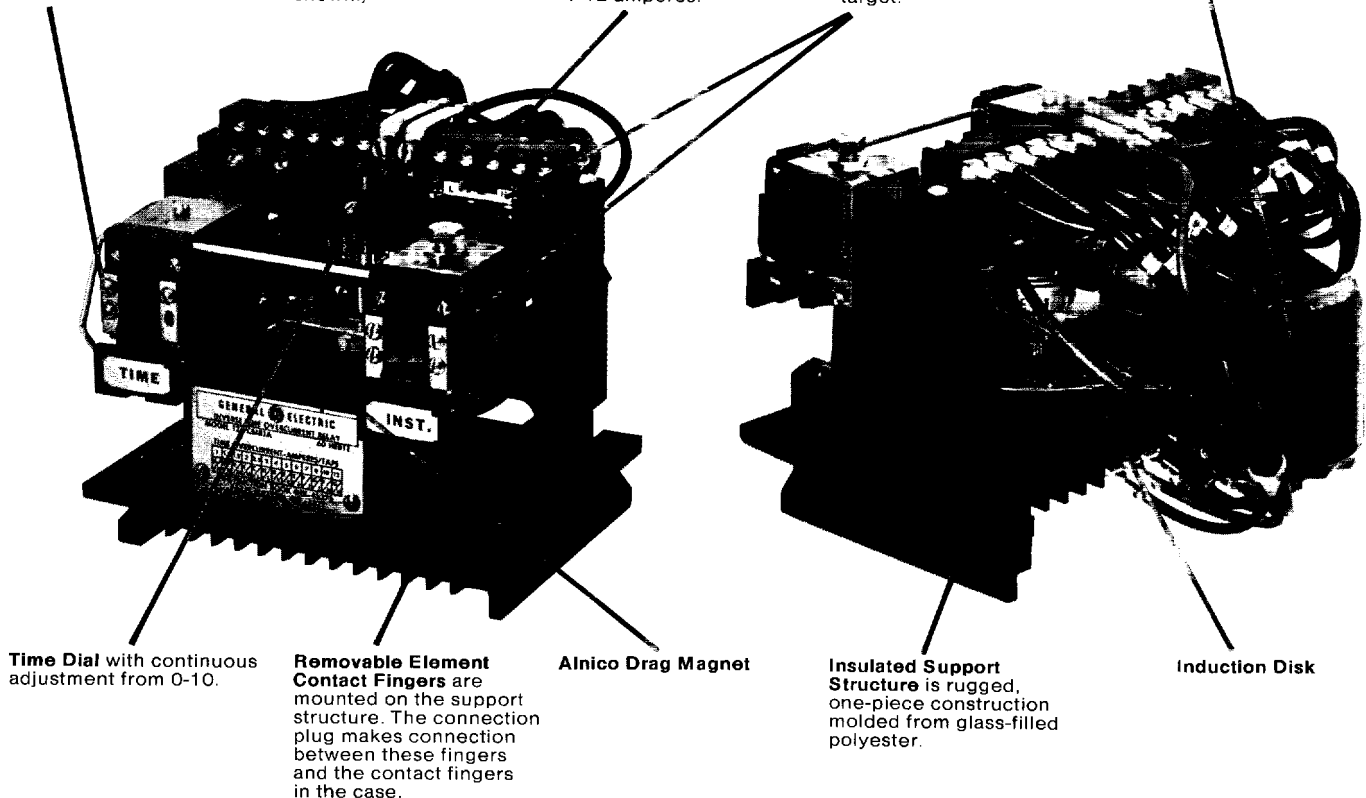
High-seismic Target and Seal-in Unit for time-overcurrent element is a hinged-armature relay with 10g capability. A tapped coil provides both 0.2-amp and 2-amp ratings. Flow of trip current operates the target and the seal-in contacts.

Magnetic Shunt provides low reluctance path for operating-coil stray flux. Relay time-current characteristics are not affected by removing the relay from the case or by proximity of external magnetic materials. (Not shown.)

Tap Setting Time-overcurrent operating coil is provided with taps that are connected to receptacles on tap block for setting with movable tap leads. Two time-overcurrent ranges are available: 0.5-4 or 1-12 amperes.

High-seismic Instantaneous Overcurrent Unit is a hinged-armature relay with 10g capability. Sliding link provides selection of upper or lower portion of the 25:1 adjustment range. Unit contains its own indicating target.

Time-Overcurrent Operating Coil and Magnet



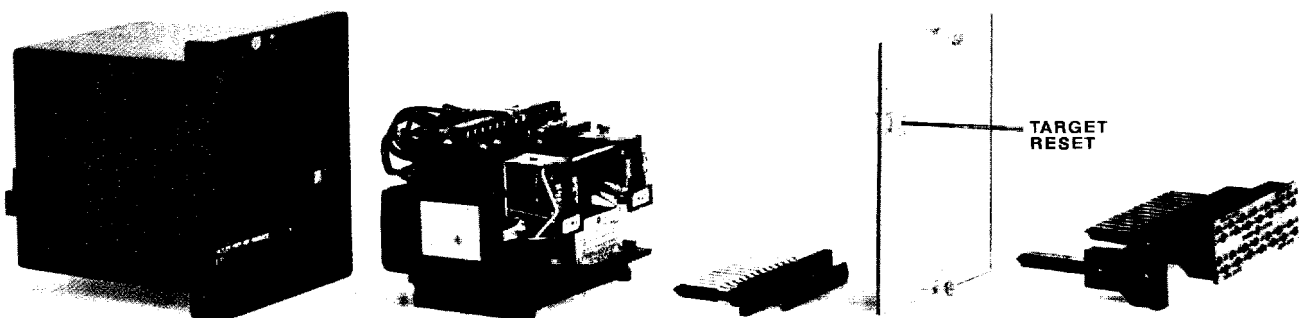
Time Dial with continuous adjustment from 0-10.

Removable Element Contact Fingers are mounted on the support structure. The connection plug makes connection between these fingers and the contact fingers in the case.

Alnico Drag Magnet

Insulated Support Structure is rugged, one-piece construction molded from glass-filled polyester.

Induction Disk



Case is a one-piece, glass-filled polyester molding suitable for either semi-flush or surface mounting. Gasket provides dust seal. Hooded flange prevents accumulated debris from falling into relay as cover is removed. "Out Of Service" sign on bottom of connection block is visible only with connection plug removed, indicating relay is disconnected.

Removable Relay Element consists of one-piece molded support structure with relay sub-assemblies mounted to provide easy access for maintenance.

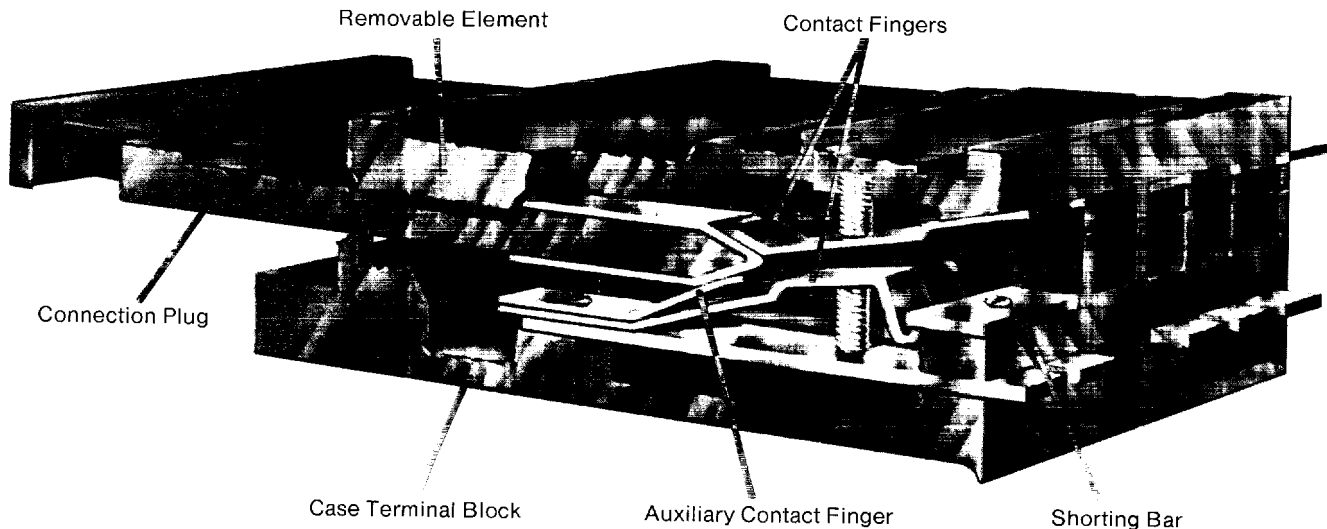
Connection Plug makes positive silver-to-silver contact between fingers on the removable element and the bottom connection block on the case.

Cover is completely transparent, permitting visual inspection of the relay and determination of shorting bar and target position. The target reset button projects from the front of the cover.

Test Probe and Test Plug are used for routine testing in the case. Testing is accomplished by removing the connection plug and inserting four-point test probes or 14 or 28 point test plug with suitable external connections. Current can be monitored with one probe and ammeter. Test probe is keyed to prevent inserting incorrectly.

Overcurrent relay testing...n

IAC



IAC DRAWOUT CASE CONNECTION AND TEST FEATURE

The connection plug, when fully inserted, energizes the relay circuits by electrically connecting contact fingers on the case terminal block and the removable element.

As the connection plug is withdrawn, current transformer secondary connections are short-circuited and the relay is de-energized as follows:

1. Plug clears short contact fingers in trip circuit before disconnecting any other circuits. There is no need to first operate a separate trip circuit switch to prevent false tripping.

2. Terminal block contact fingers disengage, but current circuit is maintained through auxiliary contact fingers.

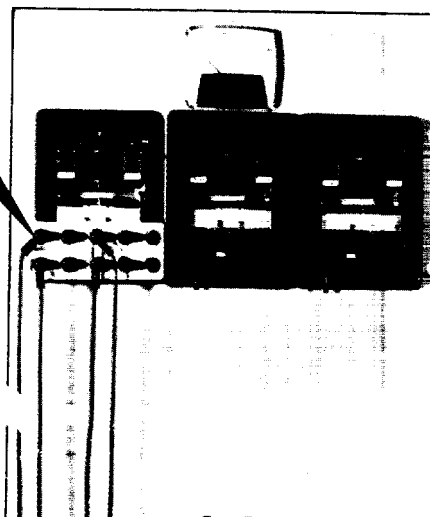
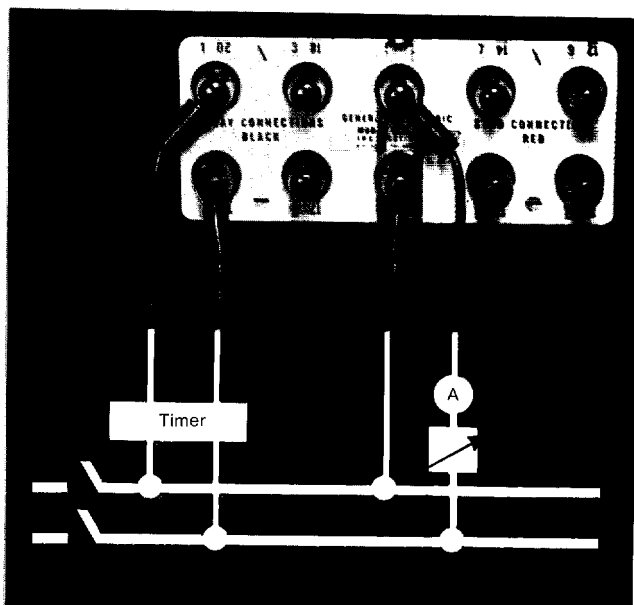
3. Current circuit fingers on terminal block engage shorting bar to short-circuit current transformer secondary connections.

4. Plug clears auxiliary contact fingers and removable element contact fingers to open relay current circuit. When plug is fully withdrawn, relay is completely de-energized.

IAC TESTING

Complete testing of the IAC in its case is accomplished by utilizing a Type XLA test plug in place of the connection plug.

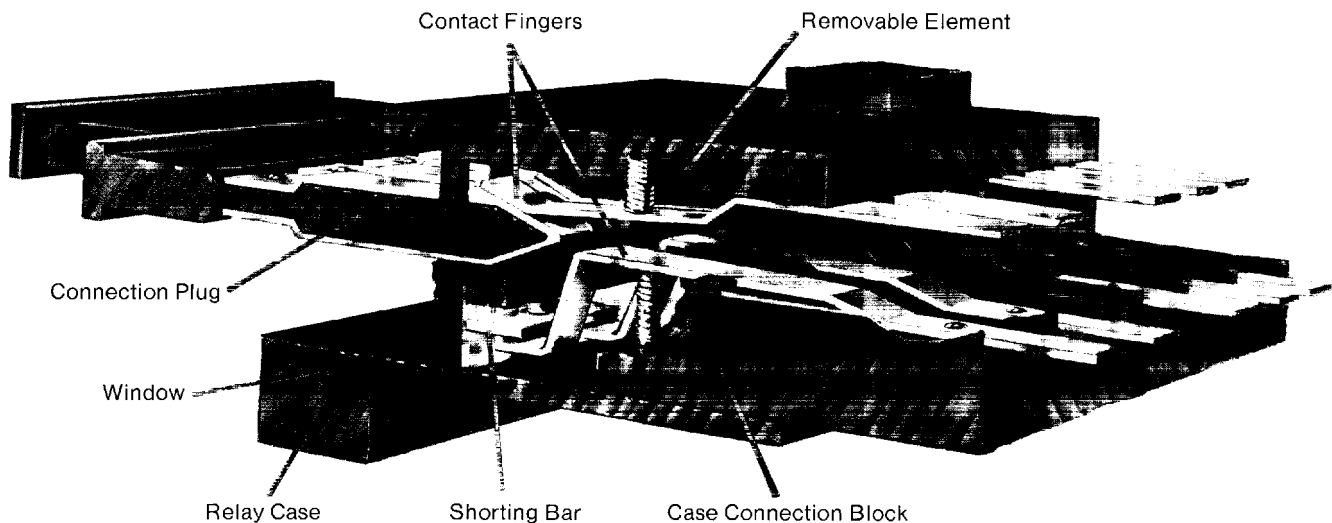
The test plug provides a means of testing the IAC in place by connecting an adjustable ac current source, an ammeter, and a timer through binding posts on the front of the plug.



IAC TEST SETUP
WITH RELAY
IN PLACE

Now simpler and more flexible.

IFC



IFC DRAWOUT CASE CONNECTION AND TEST FEATURE

The connection plug, when fully inserted, energizes relay circuits by electrically connecting the contact fingers on the case and the removable element.

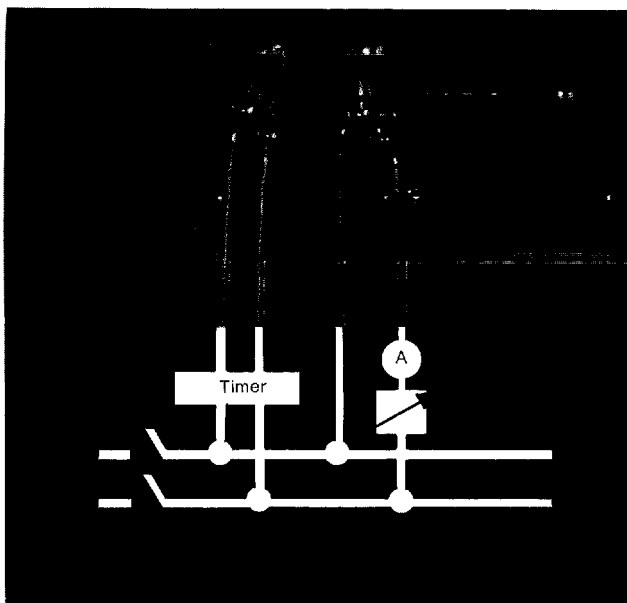
As the connection plug is withdrawn, current transformer secondary connections are short-circuited and the relay is de-energized as follows:

1. Plug clears short contact fingers in trip circuit before disconnecting any other circuits. There is no need to first operate a separate trip circuit switch to prevent false tripping.
2. Current circuit fingers on case connection block engage the shorting bar located at lower front of case to short-circuit current transformer secondary connections.

3. Window provides visual confirmation of contact between shorting bar and current circuit contact fingers.

4. Plug clears case contact fingers and then long fingers on removable element to open relay current circuit. When plug is fully withdrawn, relay is completely de-energized.

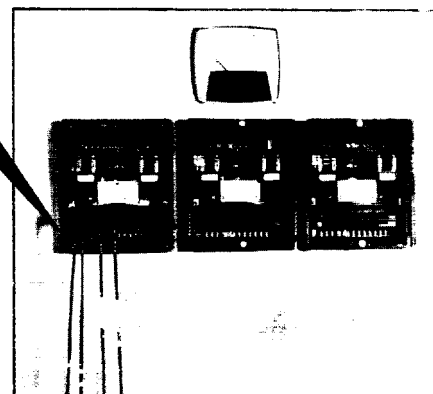
IFC TESTING



Complete and flexible testing of the IFC in its case is accomplished by substituting four-point test probes or 14 or 28 point test plug for the connection plug.

Test probes provide a means for testing individual IFC circuits in place by connecting an adjustable ac current source, an ammeter, and a timer through plug-in connections. Current in the relay can be monitored using only one test probe. Probes are keyed to prevent insertion into incorrect positions.

Complete testing of the relay can also be accomplished using the 14 or 28 point test plug.



IFC TEST SETUP
WITH RELAY
IN PLACE

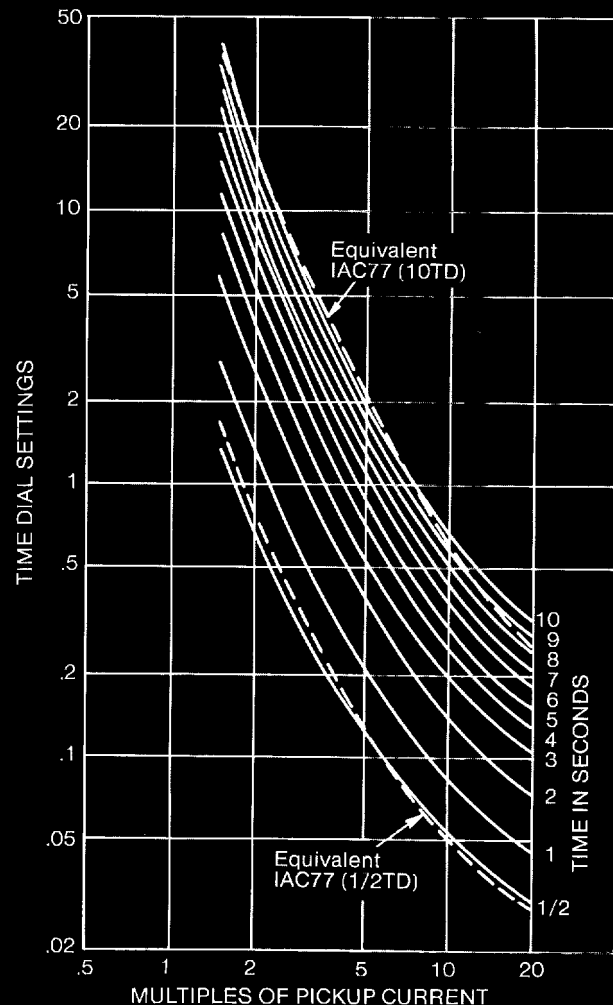
Characteristics & Application of IFC Relays

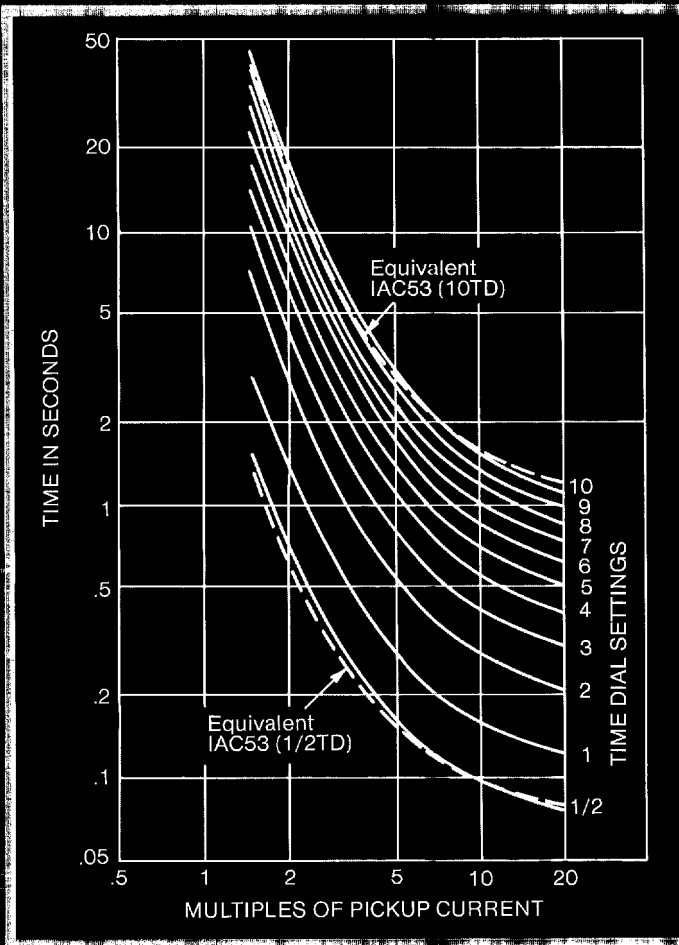
Selection and application of IFC relays are identical to equivalent IAC models with Extremely Inverse, Very Inverse or Inverse time-current characteristics, with or without instantaneous overcurrent unit.

IFC

EXTREMELY INVERSE

The extremely inverse relay is most applicable for the protection of utility-type distribution feeder circuits with the combined requirements of (1) sufficient time delay to allow a re-energized circuit to pick up accumulated cold load without unnecessary tripping during inrush and (2) proper coordination with downstream power fuses, cutouts, and reclosers.

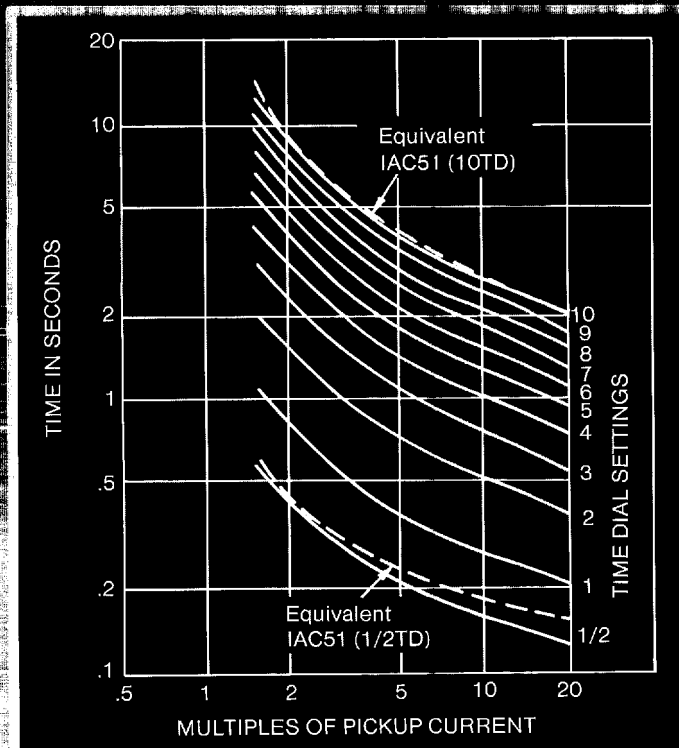




IFC 53

VERY INVERSE

The very inverse characteristic provides faster fault-clearing times while maintaining selectivity on systems typically found in industrial plants and power stations where the magnitude of fault current flowing through any given relay is more dependent on the relative location of the fault to the relay than on system generation at the time of the fault.



IFC 51

INVERSE

The inverse characteristic is suitable for those special applications where fault current magnitude is dependent primarily upon system generation at the time of the fault and only slightly on the location of the fault relative to the relay.

TO FULLY PROTECT distribution feeders from overcurrent, four IFC relays are recommended: three for multi-phase fault protection, and one for ground-fault protection.

Type IFC Time-Overcurrent Relay

SELECTION GUIDE—60 Hz and 50

RATINGS	
CURRENT RANGE (Amperes)	
Time-overcurrent Unit	Instantaneous Unit
0.5-4	....
1-12	....
0.5-4	2-50
1-12	2-50
1-12	6-150

DISTRIBUTION TABLE

Time-Current Characteristic	60 Hz IAC Models			IFC Model Which	
	Time Delay Range (Amps)	Instantaneous Range (Amps)	60 Hz IAC Model No.	60 Hz IFC Model No.	Time Delay Range (Amps)
Inverse	0.5-4 2-16	....	IAC51A801A IAC51A802A	IFC51A2A IFC51A1A	0.5-4 1-12
Inverse with Instantaneous	0.5-4	0.5-4	IAC51B801A	IFC51B2A	0.5-4
	0.5-4	2-16	IAC51B803A	IFC51B2A	0.5-4
	0.5-4	10-80	IAC51B805A	IFC51B2A	0.5-4
	2-16	2-16	IAC51B804A	IFC51B1A	1-12
	2-16	10-80	IAC51B806A	IFC51B1A	1-12
	2-16	20-160	IAC51B808A	IFC51B1A	1-12
Very Inverse	0.5-4 1.5-12	....	IAC53A801A IAC53A803A	IFC53A2A IFC53A1A	0.5-4 1-12
Very Inverse with Instantaneous	0.5-4	0.5-4	IAC53B801A	IFC53B2A	0.5-4
	0.5-4	2-16	IAC53B803A	IFC53B2A	0.5-4
	0.5-4	10-80	IAC53B805A	IFC53B2A	0.5-4
	1.5-12	2-16	IAC53B810A	IFC53B3A	1-12
	1.5-12	10-80	IAC53B811A	IFC53B1A	1-12
	1.5-12	20-160	IAC53B812A	IFC53B1A	1-12
Extremely Inverse	0.5-4 1.5-12	....	IAC77A801A IAC77A803A	IFC77A2A IFC77A1A	0.5-4 1-12
Extremely Inverse with Instantaneous	0.5-4	0.5-4	IAC77B801A	IFC77B2A	0.5-4
	0.5-4	2-16	IAC77B803A	IFC77B2A	0.5-4
	0.5-4	10-80	IAC77B805A	IFC77B2A	0.5-4
	1.5-12	2-16	IAC77B810A	IFC77B3A	1-12
	1.5-12	10-80	IAC77B811A	IFC77B1A	1-12
	1.5-12	20-160	IAC77B812A	IFC77B1A	1-12

Hz

60 Hz MODEL NUMBER			50 Hz MODEL NUMBER		
Inverse Type IFC51	Very Inverse Type IFC53	Extremely Inverse Type IFC77	Inverse Type IFC51	Very Inverse Type IFC53	Extremely Inverse Type IFC77
12IFC51A2A	12IFC53A2A	12IFC77A2A	12IFC51A5A	12IFC53A2A	12IFC77A2A
12IFC51A1A	12IFC53A1A	12IFC77A1A	12IFC51A4A	12IFC53A1A	12IFC77A1A
12IFC51B2A	12IFC53B2A	12IFC77B2A	12IFC51B5A	12IFC53B2A	12IFC77B2A
.....	12IFC53B3A	12IFC77B3A	.....	12IFC53B3A	12IFC77B3A
12IFC51B1A	12IFC53B1A	12IFC77B1A	12IFC51B4A	12IFC53B1A	12IFC77B1A

Notes: (1) All IFC53 (Very Inverse) and IFC77 (Extremely Inverse) Models are dual frequency rated: 50/60 Hz.
 (2) Time overcurrent Unit Taps are as follows: 0.5-4A: 0.5, 0.6, 0.7, 0.8, 1, 1.2, 1.5, 2, 2.5, 3 and 4 amperes.
 1-12A: 1, 1.2, 1.5, 2, 2.5, 3, 4, 5, 6, 7, 8, 10 and 12 amperes.
 (3) Instantaneous Unit Ranges are continuously adjustable over the 2-50A or 6-150A ranges.

Supersedes IAC		50 Hz IAC Models			Time-Current Characteristic
Instantaneous Range (Amps)	50 Hz IFC Model No.	50 Hz IAC Model No.	Time Delay Range (Amps)	Instantaneous Range (Amps)	
.....	IFC51A5A IFC51A4A	IAC51A804A IAC51A805A	0.5-4 2-16	.....	Inverse
2-50 2-50 2-50	IFC51B5A IFC51B5A IFC51B5A	IAC51B821A IAC51B823A IAC51B825A	0.5-4 0.5-4 0.5-4	0.5-4 2-16 10-80	Inverse with Instantaneous
6-150 6-150 6-150	IFC51B4A IFC51B4A IFC51B4A	IAC51B824A IAC51B826A IAC51B828A	2-16 2-16 2-16	2-16 10-80 20-160	
.....	IFC53A2A IFC53A1A	IAC53A801A IAC53A803A	0.5-4 1.5-12	.....	Very Inverse
2-50 2-50 2-50	IFC53B2A IFC53B2A IFC53B2A	IAC53B801A IAC53B803A IAC53B805A	0.5-4 0.5-4 0.5-4	0.5-4 2-16 10-80	Very Inverse with Instantaneous
2-50	IFC53B3A	IAC53B810A	1.5-12	2-16	
6-150 6-150	IFC53B1A IFC53B1A	IAC53B811A IAC53B812A	1.5-12 1.5-12	10-80 20-160	
.....	IFC77A2A IFC77A1A	IAC77A804A IAC77A805A	0.5-4 1.5-12	.....	Extremely Inverse
2-50 2-50 2-50	IFC77B2A IFC77B2A IFC77B2A	IAC77B821A IAC77B823A IAC77B825A	0.5-4 0.5-4 0.5-4	0.5-4 2-16 10-80	Extremely Inverse with Instantaneous
2-50	IFC77B3A	IAC77B824A	1.5-12	2-16	
6-150 6-150	IFC77B1A IFC77B1A	IAC77B826A IAC77B828A	1.5-12 1.5-12	10-80 20-160	

Rating Table for GE IFC &

Relay Model Number	Time-Current Curve	Amperes			Burden at Minimum Pickup		Z (Ohms) Burden at:			
		Time-Current Tap Range	One-Second Rating*	Inst. Unit Range	Z (Ohms)†	P.F.	3X Pickup	10X Pickup	20X Pickup	
60 Hz RELAYS										
IFC51A2A 1A	Inverse	0.5-4 1-12	130 260	....	22.2 5.5	0.24 0.27	12.5 3.1	5.1 1.3	3.3† 0.8
IFC51B2A 1A	Inverse	0.5-4 1-12	130 260	2-50 6-150	22.2 5.5	0.24 0.27	12.5 3.1	5.1 1.3	3.3† 0.8	
IAC52A801A 802A	Inverse	0.5-4 2-16	70 260	.... ....	22.0 1.5	0.25 0.26	10.8 0.7	5.0 0.3	3.7† 0.2
IAC52B803A 806A	Inverse	0.5-4 2-16	70 260	2-16 10-80	22.5 1.5	0.26 0.26	11.0 0.7	5.1 0.3	3.7† 0.2	
IFC53A2A 1A	Very Inverse	0.5-4 1-12	140 260	....	4.5 1.1	0.34 0.34	4.5 1.1	3.1 0.8	1.9† 0.5
IFC53B2A 3A 1A	Very Inverse	0.5-4 1-12 1-12	140 260 260	2-50 2-50 6-150	4.6 1.1 1.1	0.34 0.34 0.34	4.6 1.1 1.1	3.2 0.8 0.8	1.9† 0.5 0.5	
IAC54A801A 803A	Very Inverse	0.5-4 1.5-12	140 260	....	4.2 0.6	0.34 0.40	4.2 0.6	2.9 0.4	2.2† 0.3
IAC54B803A 811A	Very Inverse	0.5-4 1.5-12	140 260	2-16 10-80	4.3 0.6	0.35 0.40	4.3 0.6	3.0 0.4	2.2† 0.3	
IAC55A3A 2A 101A	Short Time	0.5-2 1.5-6 4-16	50 140 250	....	53.3 7.4 1.0	0.20 0.25 0.31	34.7 4.8 0.7	14.5 2.0 0.3	10.0† 1.1† 0.2
IAC55B10A 2A 104A	Short Time	0.5-2 1.5-6 4-16	50 140 250	4-16 10-40 20-80	54.0 7.5 1.0	0.22 0.26 0.31	35.1 4.9 0.7	14.6 2.1 0.3	10.1† 1.1† 0.2	
IAC57A3A 2A 101A	Medium Time	0.5-2 1.5-6 4-16	....	....	21.2 2.4 0.4	0.26 0.26 0.29			
IAC57B13A 104A	Medium Time	1.5-6 4-16	....	4-16 20-80	21.5 0.4	0.27 0.29			
IAC66A1A 2A	Long Time	2.5-5 4-8	250 385	....	0.8 0.3	0.13 0.13	0.4 0.2	0.2 0.1	0.1 0.1
IAC66B6A 1A 4A	Long Time	1.5-3 2.5-5 4-8	90 250 385	10-40 10-40 20-80	2.1 0.8 0.3	0.13 0.13 0.13	1.1 0.4 0.2	0.6 0.2 0.1	0.3 0.1 0.1	
IAC66K15A 6A 8A 19A	Long Time	1.5-3 2.5-5 2.5-5 4-8	90 250 250 385	10-40/2-6 10-40/4-12 20-80/4-12 20-80/4-12	2.9 1.0 1.0 0.5	0.15 0.14 0.14 0.14	1.5 0.5 0.5 0.2	0.8 0.3 0.3 0.1	0.4 0.2 0.2 0.1	
IFC77A2A 1A	Extremely Inverse	0.5-4 1-12	85 220	....	2.8 0.7	0.55 0.81	2.9 0.7	2.9 0.7	2.8 0.7
IFC77B2A 3A 1A	Extremely Inverse	0.5-4 1-12 1-12	85 220 220	2-50 2-50 6-150	2.9 0.7 0.7	0.55 0.81 0.81	2.9 0.7 0.7	2.9 0.7 0.7	2.8 0.7 0.7	
IAC78A801A 803A	Extremely Inverse	0.5-4 1.5-12	125 260	....	1.6 0.2	0.50 0.50	1.6 0.2	1.6 0.2	1.6 0.2
IAC78B803A 811A	Extremely Inverse	0.5-4 1.5-12	125 260	2-16 10-80	1.7 0.2	0.53 0.50	1.7 0.2	1.7 0.2	1.7 0.2	
IAC95F1A	Moderately Short	1.5-6	220	1.5-5	0.3	0.26	0.2	0.1	0.1	
50 Hz RELAYS										
IFC51A4A 3A	Inverse	0.5-4 1-12	130 260	....	18.5 4.6	0.24 0.26	11.5 2.6	4.3 1.1	2.7† 0.7
IFC51B4A 3A	Inverse	0.5-4 1-12	130 260	2-50 6-150	18.5 4.6	0.24 0.26	11.5 2.6	4.3 1.1	2.7† 0.7	
IAC52A804A 805A	Inverse	0.5-4 2-16	70 260	....	18.5 1.1	0.28 0.29	9.2 0.6	4.3 0.3	3.2† 0.2
IAC52B823A 826A	Inverse	0.5-4 2-16	70 260	2-16 10-80	18.9 1.1	0.30 0.29	9.5 0.6	4.4 0.3	3.2† 0.2	
IFC53A2A 1A	Very Inverse	0.5-4 1-12	140 260	....	3.8 0.9	0.34 0.34	3.7 0.9	2.6 0.7	1.6† 0.4

AC Time-Overcurrent Relay

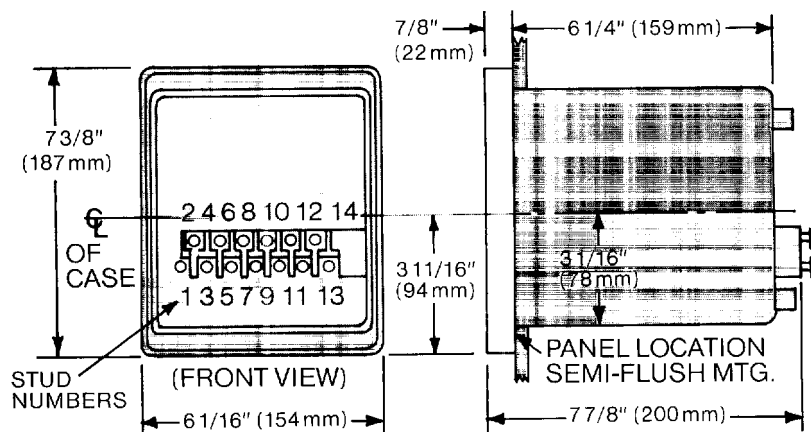
Relay Model Number	Time-Current Curve	Amperes			Burden at Minimum Pickup		Z (Ohms) Burden at:		
		Time-Current Tap Range	One-Second Rating*	Inst. Unit Range	Z (Ohms)†	P.F.	3X Pickup	10X Pickup	20X Pickup
50 Hz RELAYS (Con't.)									
IFC53B2A 3A 1A	Very Inverse	0.5-4	140	2-50	3.8	0.34	3.7	2.6	1.6‡
		1-12	260	2-50	0.9	0.34	0.9	0.7	0.4
		1-12	260	6-150	0.9	0.34	0.9	0.7	0.4
IAC54A801A 803A	Very Inverse	0.5-4	140	....	3.6	0.37	3.6	2.5	1.9‡
		1.5-12	260	....	0.5	0.42	0.5	0.4	0.2
IAC54B803A 811A	Very Inverse	0.5-4	140	2-16	3.7	0.38	3.7	2.6	1.9‡
		1.5-12	260	10-80	0.5	0.42	0.5	0.4	0.2
IAC55A6A 5A 104A	Short Time	0.5-2	50	....	44.5	0.20	28.9	12.1	6.0‡
		1.5-6	140	....	6.2	0.25	4.0	1.7	0.9‡
		4-16	250	....	0.8	0.31	0.6	0.3	0.2‡
IAC55B14A 6A 105A	Short Time	0.5-2	50	4-16	44.5	0.20	28.9	12.1	6.0‡
		1.5-6	140	10-40	6.3	0.26	4.0	1.7	0.9‡
		4-16	250	10-40	0.9	0.33	0.6	0.3	0.2‡
IAC57A6A 8A	Medium Time	0.5-2	70	....	17.8	0.28			
		1.5-6	200	....	15.8	0.30			
IAC57B6A 105A	Medium Time	1.5-6	70	10-40	17.9	0.30			
		4-16	200	10-40	15.9	0.31			
IAC66A14A 12A	Long Time	2.5-5	250	....	0.7	0.15	0.5	0.3	0.2
		4-8	385	....	0.3	0.14	0.2	0.1	0.1
IAC66B9A 10A	Long Time	2.5-5	250	20-80	0.7	0.15	0.5	0.3	0.2
		4-8	385	20-80	0.3	0.14	0.2	0.1	0.1
IAC66K11A 2A 25A	Long Time	1.5-3	90	10-40/2-6	2.5	0.16	1.3	0.7	0.4
		2.5-5	250	20-80/4-12	0.9	0.15	0.4	0.3	0.2
		4-8	385	20-80/4-12	0.5	0.15	0.2	0.1	0.1
IFC77A2A 1A	Extremely Inverse	0.5-4	85	....	2.4	0.55	2.4	2.4	2.3
		1-12	220	....	0.6	0.80	0.6	0.6	0.6
IFC77B2A 3A 1A	Extremely Inverse	0.5-4	85	2-50	2.5	0.55	2.5	2.5	2.5
		1-12	220	2-50	0.6	0.80	0.6	0.6	0.6
		1-12	220	6-150	0.6	0.80	0.6	0.6	0.6
IAC95F2A	Moderately Short	1.5-6	220	1.5-5	0.3	0.28	0.2	0.1	0.1

Notes: *Rating for shorter times may be calculated by I^2t relationship. There is no mechanical limitation.

†The impedance values given are those for the minimum tap of each relay. The impedance for other taps at pickup rating (tap setting) varies approximately inversely as the square of the current. Thus, for the IFC 51A1A, 1-12A, the impedance of the 1A tap is 22.2 ohm. The impedance of the 5A tap, for example, is $(\frac{1}{5})^2 \times 22.2$ or 0.9 ohm.

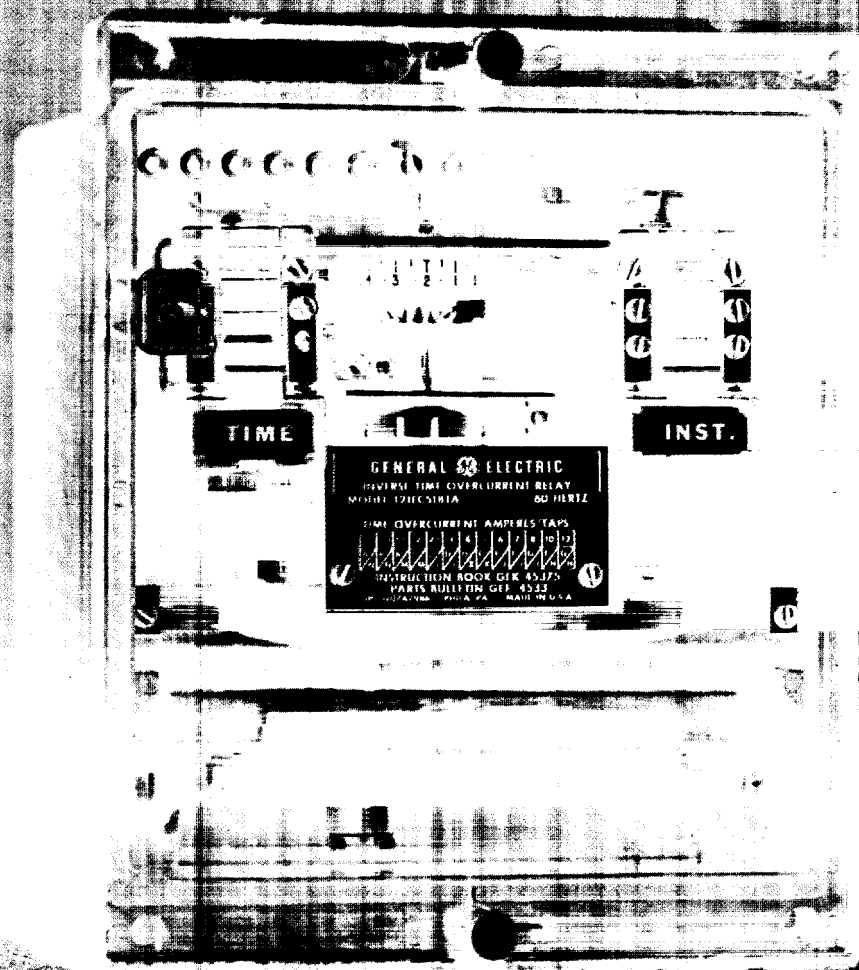
‡These relays are often used in the residual circuit of current transformers for ground-fault protection. The burden is, therefore, not imposed except during a ground fault, and need not be considered except for this momentary period.

IFC Relay Dimensions



NEW TYPE TEC

Time-Overcurrent Relay



General Electric Company
Power Systems Management Operation
Philadelphia, PA 19142

GENERAL  ELECTRIC